

**Crawford Compressor Station
Characterization Report**

Fairfield County, Ohio

December 2001

Revision No. 1: 20 March 2002

**Prepared for Columbia Gas Transmission
Corporation**

**By:
Dames & Moore, Inc./URS
Environmental Standards, Inc.
ENSR**

2.0 ENVIRONMENTAL SETTING

2.1 Physical Setting

Crawford CS is located on old Logan Road, approximately 10 miles south of Lancaster and about 2,000 feet northwest of the town of Sugar Grove, in Berne Township, Fairfield County, Ohio. Topographic relief in this area is moderately steep. Based on the topographic map (Figure 1-1) and the site map (which is based on aerial photography performed in the fall of 1997 - Figure 1-2), the base levels of main drainage streams are approximately 780 feet above msl, while the elevation of tributary streams in the vicinity of the site range from approximately 780 to 785 feet above msl. Ridge top elevations within 1 mile of the site range from 900 to 1,040 feet above msl. The site is approximately 790 feet above msl, and is located on a relatively wide flood plain of the Hocking River.

The site consists of approximately 42 acres, with the current operating portion of the facility encompassing approximately 18 acres. Site facilities include several buildings, warehouses, and storage areas. With few exceptions, the site is surrounded by a 6-foot high chain link fence with locking gates for security purposes (Figure 1-2); portions of the site that do not have fencing (e.g., the former Floating Top Gas Tank area - PRA #11) did not appear to have any operating equipment.

The surface of the site is covered by buildings, paved parking areas and driveways, grass and gravel, and generally slopes east to northeast towards the Hocking River, or toward Stuckey Run, which crosses the northern 1/3 of the site. In the former Gasoline Tank Farm (PRA #13), a contiguous area west of the main plant site, the ground surface slopes to the southeast, toward Pump Station Road.

2.2 Climate

The site is located in Fairfield County, which is characterized as a humid, modified continental climate with warm summers and moderately cold winters. The mean annual normal (1951-1980) temperature is 51.7 °F at Columbus, Ohio (National Oceanic and Atmospheric Administration, Local Climatological Data, 1995).

The mean normal temperature for January, the coldest month, is 27.1°F and the mean normal temperature for July, the warmest month, is 73.8°F.

The 1951-1980 annual normal precipitation at Columbus, Ohio is 36.97 inches. Precipitation is evenly distributed throughout the year with September (at 2.76 inches) and October (at 1.91 inches) being somewhat dryer.

2.3 Surface Water Hydrology

Based on the observed topography, most of the site drains towards the Hocking River, with the remaining portion of the site draining to Stuckey Run (which empties into the Hocking River). Drainage ditches are present along Old Logan Road which trends south and north on the east boundary of the site, as shown on Figure 1-2; these features drain the remainder of the facility.

In 1996, Columbia installed a system to intercept water flowing onto the site from areas south and west of the site; according to a report prepared by Dames & Moore, *“Engineering Report, Design of Peripheral Ditches, Crawford Compressor Station”* dated December 27, 1993, the peripheral ditch runs along the south and west sides of the site, parallel to the fence lines in these areas. The eastern half of the ditch discharges into the Hocking River, and the other half of the ditch discharges into Stuckey Run. This system included modifications and extensions of existing ditches, excavation of a new ditch, and the installation of an approximately 340-foot long corrugated metal pipe.

Flow rate data is not available for the Hocking River adjacent to the site.

Surface water is not used as a potable water source in this area.

2.3 Geology and Soils

Based on visual observations during completion of the site characterization, surface and near-surface soils consist mainly of sand, gravel, clay and alluvium. Borings were completed to a depth of 11.5 feet bgs during the current investigation. The Soil Conservation Service (SCS) identified soils in the vicinity of the site as Genesee silt loam, McGary and Fitchville silt loam, Muskingum rocky sandy loam, Ockley silt loam and Sloam silty clay loam. The Genesee silt loam is characterized by little or no erosion. McGary is calcareous and Fitchville soils are non-calcareous. Muskingum (25 - 50 percent slopes) are characterized as slightly to moderately eroded. Ockley and Sloam are characterized by little or no erosion.

According to the Ohio Department of Natural Resources, Division of Geological Survey, the site is located on a border between the Mississippian Period, Cuyahoga Formation and an unglaciated portion of the county, the Allegheny Plateau, which is located west of the Hocking River and is underlain by the coarse-grained sandstone of the Logan formation on the ridgetops.

Bedrock was not encountered during the current boring program. Bedrock underlying the site is mapped as the Cuyahoga Formation of the Mississippian System. The bedrock is composed of a series of siltstone, sandstone and mudstone, with the sandstone in some areas exceeding 500 feet in thickness.

2.4 Hydrogeology and Groundwater Quality

The northern portion of the site consists of relatively thin to thick layers of sand and gravel interbedded with thick clay layers deposited in ancestral valleys. Potential yields of groundwater of as much as 100 gallons per minute (gpm) or more may be developed at depths of less than 100 feet. Isolated permeable zones are noted, and test wells are necessary to locate coarse deposits for maximum yields.

The northeast-eastern portion of the site primarily consists of sand and gravel deposits, which partially fill ancestral drainage channels and yield as much as 500 gpm of groundwater at average depths of less than 100 feet bgs. Extensive test drilling is required to locate the coarse deposits. Test wells reveal more than 300 feet of unconsolidated deposits that fill the ancestral channel.

The southern and western portions of the site primarily consist of Berea sandstone and the Cuyahoga sandstone as the principal bedrock water bearing formations. Yields to larger diameter wells may be in excess of 75 gpm at depths in excess of 300 feet. Average depth for domestic wells seldom exceeds 140 feet.

Based on topography, shallow groundwater flow is likely to be toward the east to southeast, towards the Hocking River.

There are four on-site wells, as shown on Figure 1-2. These wells primarily are used as a source of cooling or wash water; bottled water is provided for potable use.

PRA #57 Stuckey Run (Water)

Three surface water samples were collected (CRA-ASW001-30001 through CRA-ASW003-30001) and analyzed for Table 1 constituents. The samples were collected at the sediment sampling locations in Stuckey Run. No SVOCs, cyanide, PCBs or VOCs were detected in the samples; Arsenic was detected below the CAL (50 ug/L) in one sample.

4.3.5 Groundwater PRAs

PRA #5 Former Cooling Pond (Water Samples)

Three groundwater samples were obtained from borings CRA-ASB064, CRA-ASB165 and CRA-ASB166. The samples were analyzed for BTEX, PAHs, PCBs and Table 1 Metals. Free product was present at CRA-ASB164 and CRA-ASB166. The boring logs (Appendix B) for PRA #5 samples indicate a strong petroleum hydrocarbon odor, sheen, and yellow product globules. SVOCs and Cyanide were not detected in the samples. PCBs were detected below the CAL (0.5 ug/L) in one sample. Benzene was detected above the CAL (5 ug/L) in sample CRA-ASB166-60001 at a concentration of 12 ug/L. Several Metals were detected above CALs, as follows:

Constituent	CRA-ASB164-60001 (ug/L)	CRA-ASB166-60001 (ug/L)	CAL (ug/L)
Arsenic, total	860	1200	50
Beryllium, total	16	17	4
Cadmium, total	25	24	5
Chromium, total	480	480	200
Lead, total	810	850	15
Nickel, total	610	690	100

PRA #55 Water Wells

Four groundwater samples and one duplicate (CRA-AMW001-60001 through CRA-AMW004-60001; CRA-AMW001-61001) were obtained from four wells at the site. The samples were analyzed for Table 1 constituents. No SVOCs, Cyanide, Glycols, or VOCs were detected in the samples. PCBs and Metals were detected below CALs.

4.3.6 Buildings and Other PRAs Characterized by Wipe Samples and Chip Samples

PRA #16 Cooper Compressor Building (Concrete Samples)

Sixteen wipe samples (CRA-AWP002-90001 through CRA-AWP002-90016) were obtained from the Cooper Compressor Building in 1997. PCBs were detected in six of the wipe samples at concentrations ranging from 1.0 ug/100cm² to 4 ug/100cm². There is no CAL for wipe samples of concrete surfaces. Therefore, 21 concrete chip samples and one duplicate concrete chip sample were collected from floors within the building, and two wipe samples were collected from metal surfaces within the building in 2000. PCBs were not detected in the two wipe samples. PCBs were detected below the CAL (1 mg/kg) in 12 concrete chip samples, and above the CAL in sample CRA-FCH041-80001 at a concentration of 4 mg/kg.

The fourth step of the process is to calculate “site concentrations” (as described in section 4.1 and in detail in Appendix E) and compare them to the appropriate CAL. For constituents exhibiting CAL exceedences, 95% UCLs may be calculated. The lower of the 95% UCL and the maximum detected concentration is defined as the “site concentration”, and this value is compared to CALs or industrial RALs, as appropriate. The CALs for Mercury and PCBs are applied on a sample by sample basis. Therefore, site concentrations are not calculated for Mercury or PCBs. For PCBs, an established RAL of 25 mg/kg (PCB Mega Rule, 1998, standard for unrestricted access low occupancy locations), will be employed where appropriate.

PRA #1 Former Pipeline Liquids/Used Oil AT (10,000 Gallons)

Total PCBs were detected above the CAL (1 mg/kg) in two samples:

- CRA-ASB080-70002 (2.5-4 feet bgs) – 5.7 mg/kg
- CRA-ASB082-70001 (0-1 foot bgs) – 2.2 mg/kg

The samples were collected from within the fenced portion of the facility. Therefore, industrial RALs are appropriate for this location. The concentration in both samples is below the PCB Mega Rule standard of 25 mg/kg for unrestricted access, low occupancy locations (U.S. EPA, 1998). Therefore, no further action is recommended.

PRA #2 Former Manufactured Gas Processing Plant

PAHs were detected above CALs as follows:

Constituent	RAL	CRA-ASB100-70001 (0-1 foot bgs)	CRA-ASB101-70001 (0-1 foot bgs)	CRA-ASB287-70001 (0-1 foot bgs)
Benzo(a)pyrene	7.8 mg/kg	1 mg/kg	2.6 mg/kg	0.53 mg/kg
Indeno(1,2,3-d)pyrene	78 mg/kg	Below CAL	1.8 mg/kg	Below CAL

The samples were collected from within the fenced portion of the facility. Therefore, industrial RALs are appropriate for this location. The concentrations are below the RALs. Therefore, no further action is recommended.

PRA #3 Pipeline Liquids/Used Oil Tanks

Arsenic was detected above background (17.3 mg/kg) in one sample, CRA-ASB094-70003 (5 to 6.5 feet bgs) at a concentration of 35 mg/kg. The sample was collected from within the fenced portion of the facility. Therefore, the industrial RAL of 38 mg/kg is appropriate for this location. The concentration is below the RAL. Therefore, no further action is recommended.

PRA #5 Former Cooling Pond

Several constituents were detected above CALs and/or background in soils at this PRA. The samples were collected from within the fenced portion of the facility. Therefore, industrial RALs are appropriate for this location. The samples and constituents with exceedences are presented below, along with the RAL:

- CRA-ASB052-70002 (5-6.5 feet bgs) – Benzo(a)anthracene – 1 mg/kg (RAL = 78 mg/kg)
- CRA-ASB055-70002 (5-6.5 feet bgs) – Benzo(a)pyrene – 2 mg/kg (RAL = 7.8 mg/kg)
- CRA-ASB056-70002 (5-6.5 feet bgs) – Benzo(a)anthracene – 1.8 mg/kg (RAL = 78 mg/kg)
- CRA-ASB066-70002 (5-6.5 feet bgs) – Benzo(a)anthracene – 1.7 mg/kg (RAL = 78 mg/kg)

- CRA-ASB075-70001 (2.5-4 feet bgs) – Benzo(a)anthracene – 2.2 mg/kg (RAL = 78 mg/kg)
Benzo(a)pyrene – 3.5 mg/kg (RAL = 7.8 mg/kg)
- CRA-ASB120-70002 (6-7.5 feet bgs) – Benzo(a)anthracene – 1.2 mg/kg (RAL = 78 mg/kg)
- CRA-ASB054-70001 (5-6.5 feet bgs) – Aroclor-1254 – 5.2 mg/kg (RAL = 25 mg/kg)
- CRA-ASB064-70001 (2.5-4 feet bgs) – Aroclor-1254 – 1.5 mg/kg (RAL = 25 mg/kg)
- CRA-ASB073-70001 (2.5-4 feet bgs) – Aroclor-1254 – 1.7 mg/kg (RAL = 25 mg/kg)
- CRA-ASB075-70001 (2.5-4 feet bgs) – Aroclor-1254 – 4.1 mg/kg (RAL = 25 mg/kg)
- CRA-ASB076-70002 (5-6.5 feet bgs) – Aroclor-1254 – 1.4 mg/kg (RAL = 25 mg/kg)
- CRA-ASB052-70001 (2.5-4 feet bgs) – Arsenic - 61.8 mg/kg (RAL = 38 mg/kg)
- CRA-ASB060-70001 (5-6.5 feet bgs) – Arsenic - 23.7 mg/kg (RAL = 38 mg/kg)
- CRA-ASB075-70001 (2.5-4 feet bgs) – Arsenic - 19.7 mg/kg (RAL = 38 mg/kg)
- CRA-ASB200-70001 (2.5-4 feet bgs) – Arsenic - 34.6 mg/kg (RAL = 38 mg/kg)

All concentrations above are below RALs with the exception of Arsenic in sample CRA-ASB052-70001, collected from 2.4 to 4 feet bgs. Therefore, a site concentration was calculated for Arsenic, using all soil samples collected from the “industrial” area of the facility (all areas within the fence except for the Former Gasoline Tank Farm Area, Figure 4-3, which is being treated as a residential area) from greater than 1 foot bgs in Appendix E. The calculated site concentration is 8.67 mg/kg, which is less than the RAL of 38 mg/kg. Therefore, no further action is recommended for soils at this PRA.

Three groundwater samples were collected soil borings in PRA #5 (Former Cooling Pond). Benzene was detected above the CAL (5 ug/L) in sample CRA-ASB166-60001 at a concentration of 12 ug/L. Free product was observed at locations CRA-ASB164 and CRA-ASB166. Several Metals were detected above CALs, as follows:

Constituent	CRA-ASB164-60001 (ug/L)	CRA-ASB166-60001 (ug/L)	CAL (ug/L)
Arsenic, total	860	1200	50
Beryllium, total	16	17	4
Cadmium, total	25	24	5
Chromium, total	480	480	200
Lead, total	810	850	15
Nickel, total	610	690	100

The CALs for groundwater are based on a drinking water scenario. The samples from this PRA were collected from soil borings and not a well. Therefore, the CALs are not strictly applicable to this groundwater. However, these boring locations will be re-sampled for groundwater using low-flow sampling techniques. Benzene and total and dissolved Metals will be analyzed.

PRA #11 Former Floating Top Gas Tank

Several PAHs were detected above CALs in two samples, as follows:

Constituent	CAL/RAL (mg/kg)	CRA-ASB276-70001 (0-1 foot bgs) (Inside Fence) (mg/kg)	CRA-ASB130-70002 (5-6.5 feet bgs) (Outside Fence) (mg/kg)
Benzo(a)anthracene	0.87 / 78	23	Not detected
Benzo(a)pyrene	0.087 / 7.8	240	20
Benzo(b)fluoranthene	0.87 / 78	53	3.5
Benzo(k)fluoranthene	8.7 / 780	37	Below CAL
Indeno(1,2,3-c,d)pyrene	0.87 / 78	44	8.9

Horizontally – The number of floor and wall concrete chip samples to be collected will be calculated based on square footage of the affected floor or wall. The total square footage will be divided by one-hundred (100) and the result will equal the number of chip samples, which equates to ten (10) feet by ten (10) feet grid system. If less than four (4) samples are calculated, four (4) samples will be collected and the grid size will be reduced to yield the four (4) sample locations. If greater than twelve (12) samples are calculated, the grid system will be expanded to a maximum of twenty (20) feet by twenty (20) feet grid system, or a composting scheme will be developed to yield a total of twelve (12) samples to be analyzed. Sampling will not extend above a height of eight (8) feet above the floor level for affected walls, which is the expected maximum height that dermal contact may be reasonably expected.

Vertically – The number of concrete floor core samples to be collected is calculated by dividing the number of chip samples by four (4). The quotient will be rounded up to a complete integer to represent the number of core samples. One (1) concrete core sample will be taken for every four (4) concrete chip samples taken. The core will be one (1) inch in diameter and advanced six (6) to ten (10) inches into the concrete floor. Samples for laboratory analysis will be taken from the core segments of one-quarter (1/4) inch depth intervals.

Step 2 – Perform Response Action

After review of the additional delineation concrete-chip sample results, the most appropriate response action will be identified including but not limited to one or a combination of the following activities as presented in the General Response Action Work Plan for PCB Affected Concrete dated 13 June 2000 and approved by the U.S. EPA in August 2000.

- Surface cleaning
- Surface cleaning followed by surface coating
- Scabbling
- Removal

Selection of the response action for concrete will be based on site-specific criteria such as: accessibility; exposure duration and frequency potential; concentrations; lateral and vertical extent of constituents within affected media; and future facility use.

Confirmation samples will be collected and compared to the appropriate CAL/RAL. Additional response actions will be conducted to address concrete that still exceeds the CAL/RAL.

6.1.2 Additional Sampling

At several PRAs, wipe samples were collected of concrete surfaces. Where no concrete chip samples are available, chip sampling will be conducted.

6.1.3 PRAs Identified for Additional Delineation and/or Response Actions

PRA #5 Former Cooling Pond –Groundwater

Total Metals and Benzene were detected above CALs in groundwater samples collected from soil borings (CRA-ASB164 and CRA-ASB166) at this PRA as follows:

Constituent	CRA-ASB164-60001 (ug/L)	CRA-ASB166-60001 (ug/L)	CAL (ug/L)
Benzene	Not detected	12	5
Arsenic, total	860	1200	50
Beryllium, total	16	17	4
Cadmium, total	25	24	5
Chromium, total	480	480	200
Lead, total	810	850	15
Nickel, total	610	690	100

Additionally, free product was present at these locations. Therefore, these soil boring locations will be re-sampled for Total and Dissolved Metals, and for BTEX. A visual inspection of free product will be conducted to determine the best course of action.

PRA #11 Former Floating Top Gas Tank

Several PAHs were detected above CALs in two samples, as follows:

Constituent	CAL/RAL (mg/kg)	CRA-ASB276-70001 (0-1 foot bgs) (Inside Fence) (mg/kg)	CRA-ASB130-70002 (5-6.5 feet bgs) (Outside Fence) (mg/kg)
Benzo(a)anthracene	0.87 / 78	23	Not detected
Benzo(a)pyrene	0.087 / 7.8	240	20
Benzo(b)fluoranthene	0.87 / 78	53	3.5
Benzo(k)fluoranthene	8.7 / 780	37	Below CAL
Indeno(1,2,3-c,d)pyrene	0.87 / 78	44	8.9

Therefore, a response action will be conducted for soils at this PRA. Soils will be excavated from a 5 foot by 5 foot area, to a depth of 2 feet (CRA-ASB276) or 7 feet (CRA-ASB130) centered over each location (initial volume of about 9 cubic yards). To confirm that the response action has been completed, 5 confirmation samples (1 floor and 4 sidewall) will be collected from each excavation and submitted for PAH analysis. The response action will be continued until all confirmation samples are below CALs.

PRA #17 Worthington Compressor Building

At this PRA, wipe samples were obtained from concrete surfaces and, therefore, under the Mega Rule (U.S. EPA, 1998) chip samples of the concrete should be collected for analysis.

PRA #30 Auxiliary Building

The concentrations of Total PCBs exceeded the PCB Mega Rule standard for low occupancy locations of 25 mg/kg in one surface soil sample (CRA-ASB153-70001) at a concentration of 26 mg/kg. Additionally, concentrations of PCBs exceeded the standard for high occupancy locations of 1 mg/kg in 13 concrete chip samples collected from this PRA as follows:

- CRA-FSS002-40001- 3.6 mg/kg
- CRA-FSS004-40001 -8.7 mg/kg
- CRA-FSS005-40001 -5.9 mg/kg
- CRA-FSS006-40001 -3.13 mg/kg

PRA #43 Existing Pond

Arsenic was detected above the CAL (0.43 mg/kg) and background (17.3 mg/kg) in sediment sample CRA-ASD007-40001 at a concentration of 74.7 mg/kg. Therefore, the pond will be drained and sediment removal will be conducted surrounding this sample. Note that the cistern in the auxiliary building will be remediated concurrently. Confirmation samples will be collected and submitted for Arsenic analysis. The response action will continue until all confirmation sample concentrations results are below the background concentration of 17.3 mg/kg Arsenic.

PRA #44 Condensate Pit for ARTs

The concentrations of PCBs exceeded the PCB Mega Rule standard for low occupancy locations of 25 mg/kg in one soil sample (CRA-ASB160-70001, 2.5-3 feet bgs) at a concentration of 120 mg/kg. PCBs were also detected above the CAL of 1 mg/kg in samples CRA-ASB157-70002 and CRA-ASB160-70001. Therefore, a response action will be conducted for soils at this PRA. Soils will be excavated from a 5 foot by 5 foot area, to a depth of 4 feet, centered over the location (initial volume of about 4 cubic yards). To confirm that the response action has been completed, 5 confirmation samples (1 floor and 4 sidewall) will be collected and submitted for PCB analysis. The response action will be continued until all confirmation samples are below the PCB Mega Rule standard of 25 mg/kg.

PRA #45 Drainline Segment J

PCBs were detected at a concentration of 300 ug/100 cm² in a wipe sample at this PRA. Therefore, this segment will be remediated. The response action will include chip samples of the inspection pit and stream samples from the Hocking River (three stream segment), will be conducted on this segment of the drainline.

PRA #47 Drainline Segment H

PCBs were detected at a concentration of 140-250 ug/100 cm² in wipe samples at this PRA. Therefore, this segment will be remediated.

PRA #48 Drainline Segment G

PCBs were detected above the CAL in three sediment samples collected from this PRA, as follows:

- CRA-ASD004-30001 – 6.6 mg/kg
- CRA-ASD004-30002 – 4.8 mg/kg
- CRA-ASD004-30003 – 21.0 mg/kg

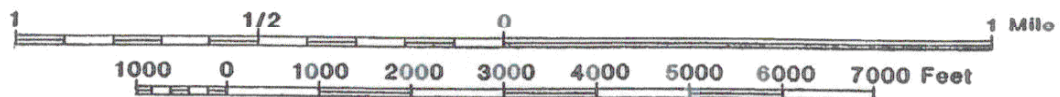
Therefore, the cistern will be drained, remediated (including sediment removal) and refilled.

PRA #50 Drainline Segment E

A dye or smoke test will be performed on the line to see if it is capped or not. The results of the test will be used to determine the most appropriate response action for this segment.

PRA #51 Drainline Segment D

At this PRA, wipe samples were obtained from concrete surfaces and, therefore, under the Mega Rule (U.S. EPA, 1998) chip samples of the concrete should be collected for analysis.



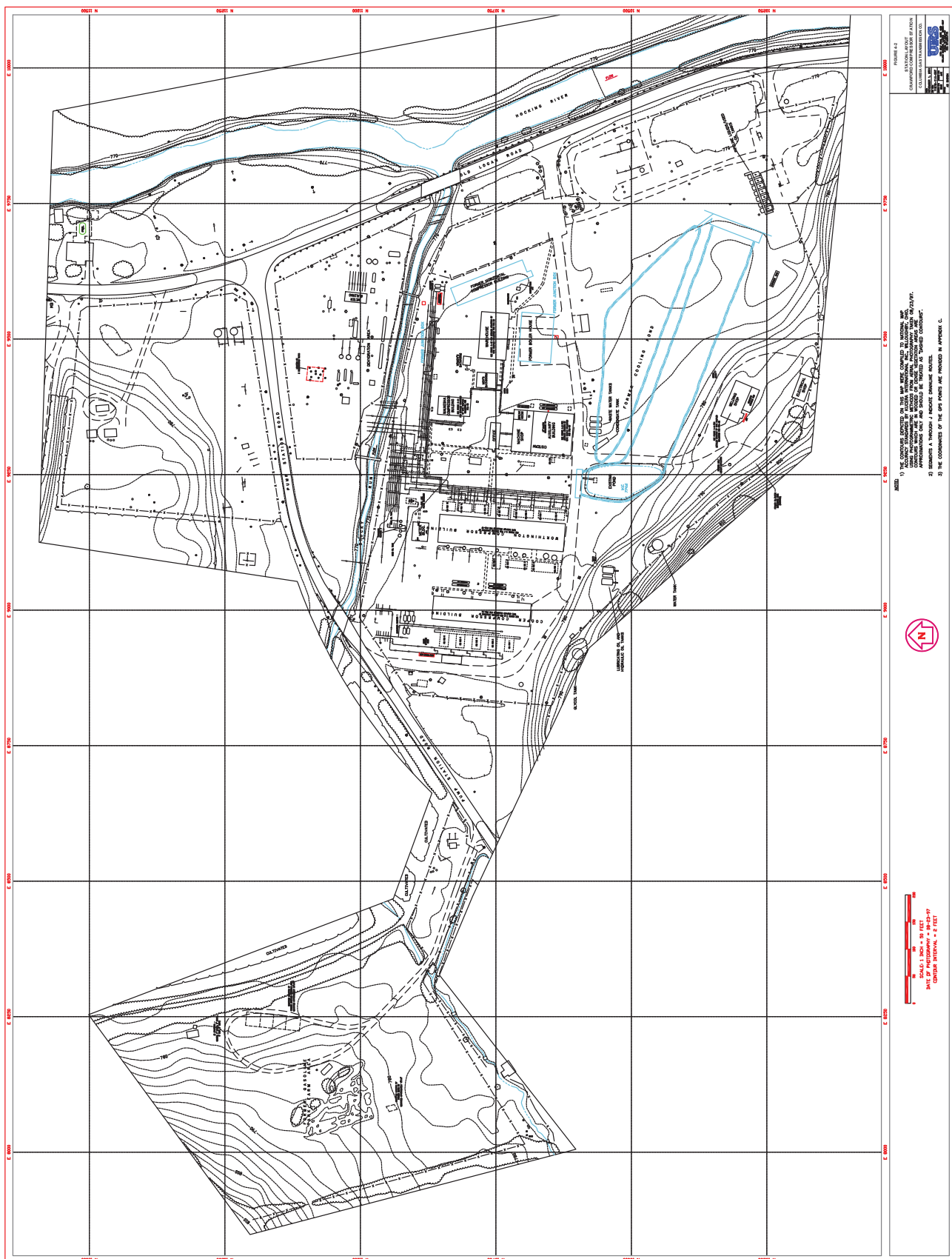
LANCASTER QUADRANGLE
OHIO—FAIRFIELD CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
AND
ROCKBRIDGE QUADRANGLE
OHIO
7.5 MINUTE SERIES (TOPOGRAPHIC)

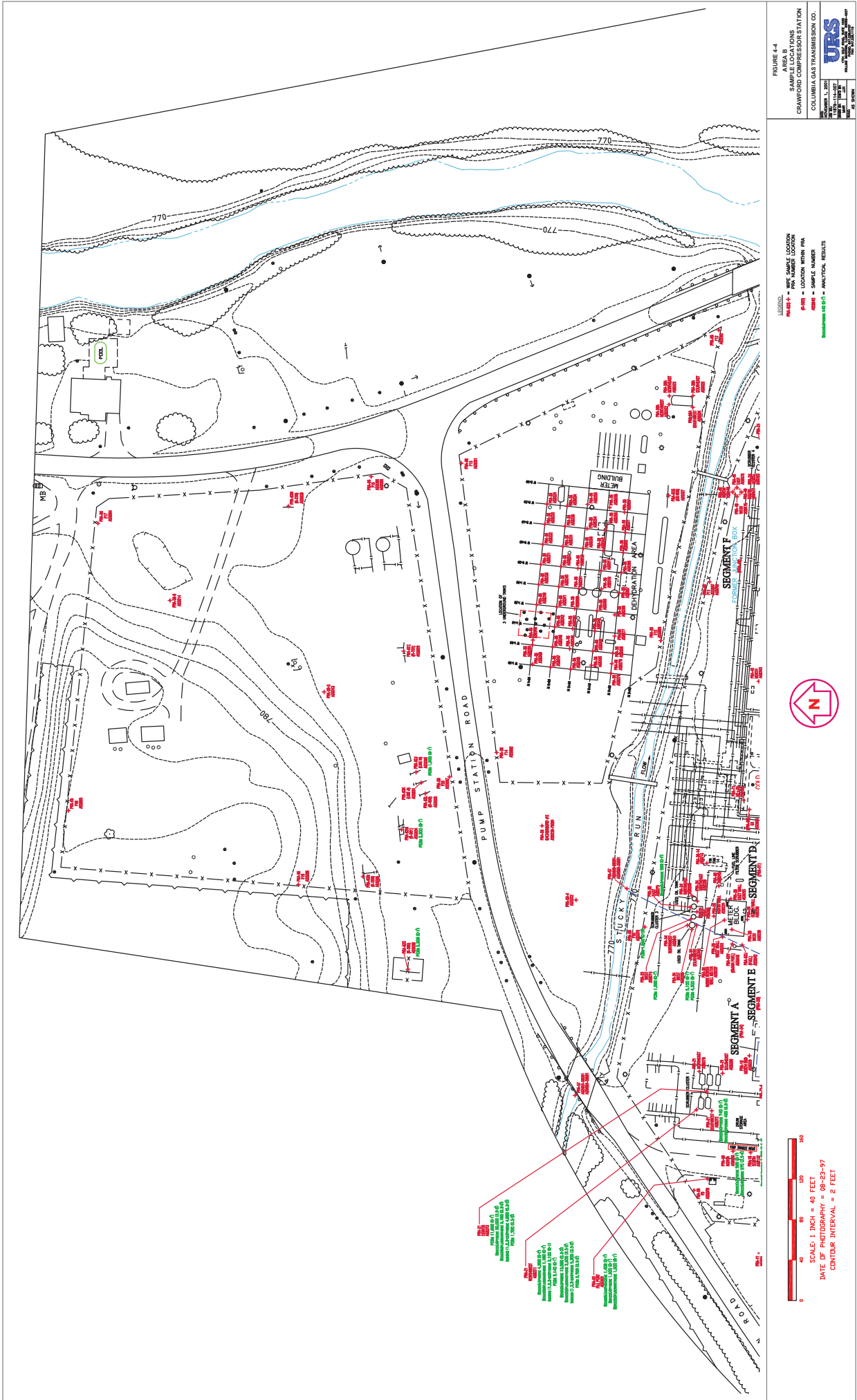


COLUMBIA GAS TRANSMISSION CORP.

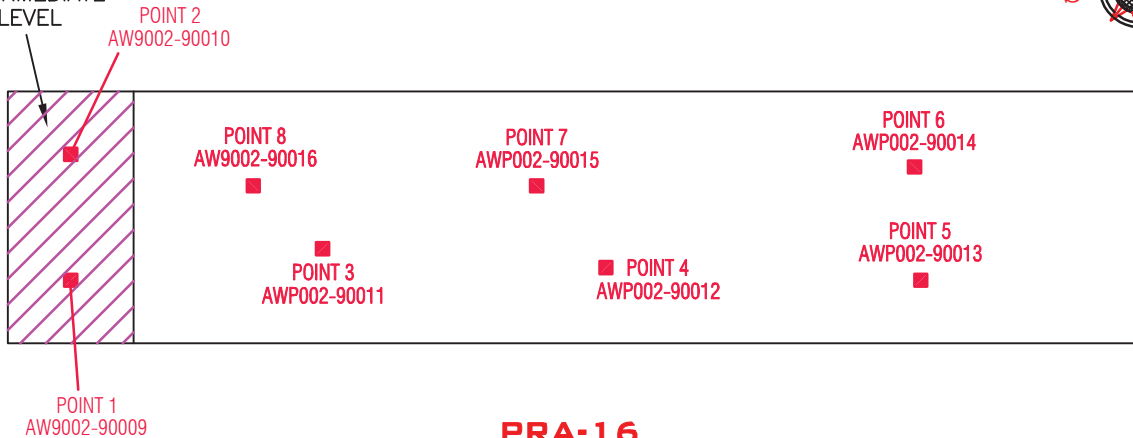
**FIGURE 1- SITE LOCATION
CRAWFORD COMPRESSOR STATION**

Dames & Moore



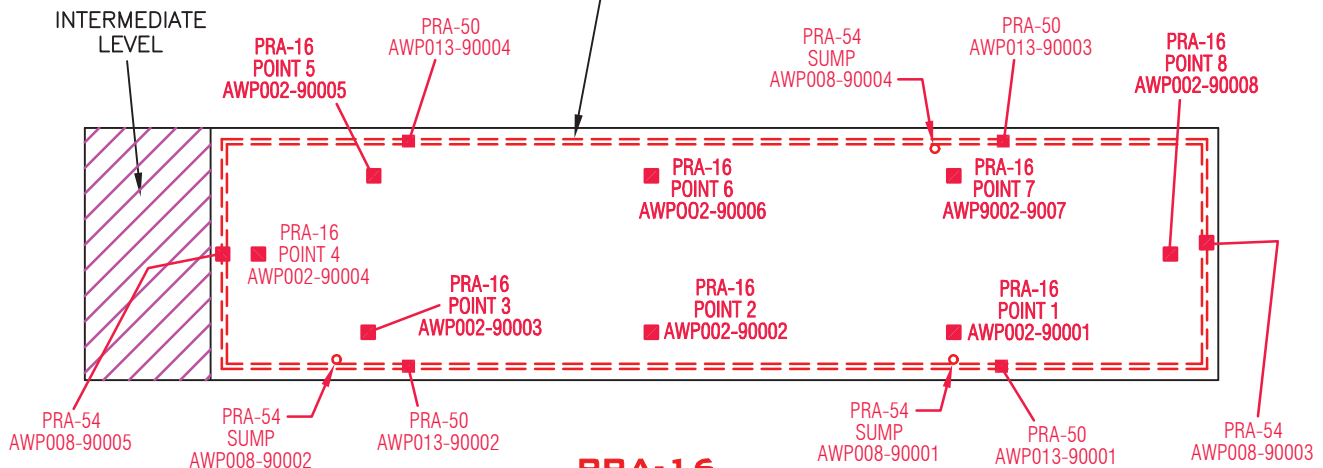


INTERMEDIATE
LEVEL



**PRA-16
COOPER COMPRESSOR BUILDING
FIRST FLOOR**

DRAINAGE CHANNEL
21" FROM WALL, 10" WIDE
VARIES IN DEPTH FROM
1 TO 10" SLOPED TO SUMPS

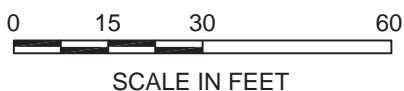


**PRA-16
COOPER COMPRESSOR BUILDING
BASEMENT FLOOR**

**PRA-50
DRAINLINE SEGEMENT E
PRA-54
DRAINLINE SEGEMENT A**

LEGEND:

- PRA-16 ■ = WIPE SAMPLE LOCATION
PRA NUMBER LOCATION
- POINT 1 = LOCATION WITHIN PRA
- AWP002-90001 = SAMPLE NUMBER
- XXXXX = ANALYTICAL RESULTS



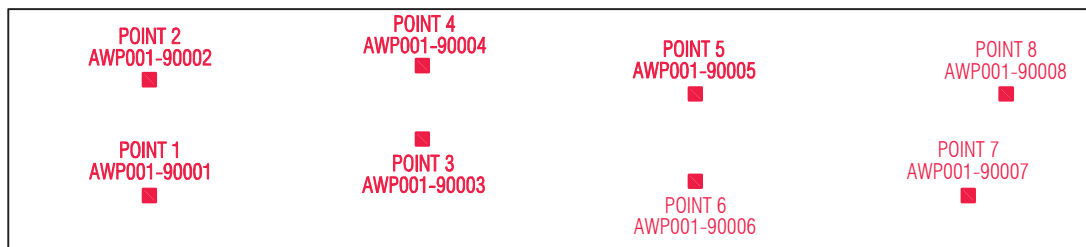
**FIGURE 4-6
SAMPLE LOCATIONS
COOPER COMPRESSOR BUILDING
CRAWFORD COMPRESSOR STATION**

COLUMBIA GAS TRANSMISSION CO.

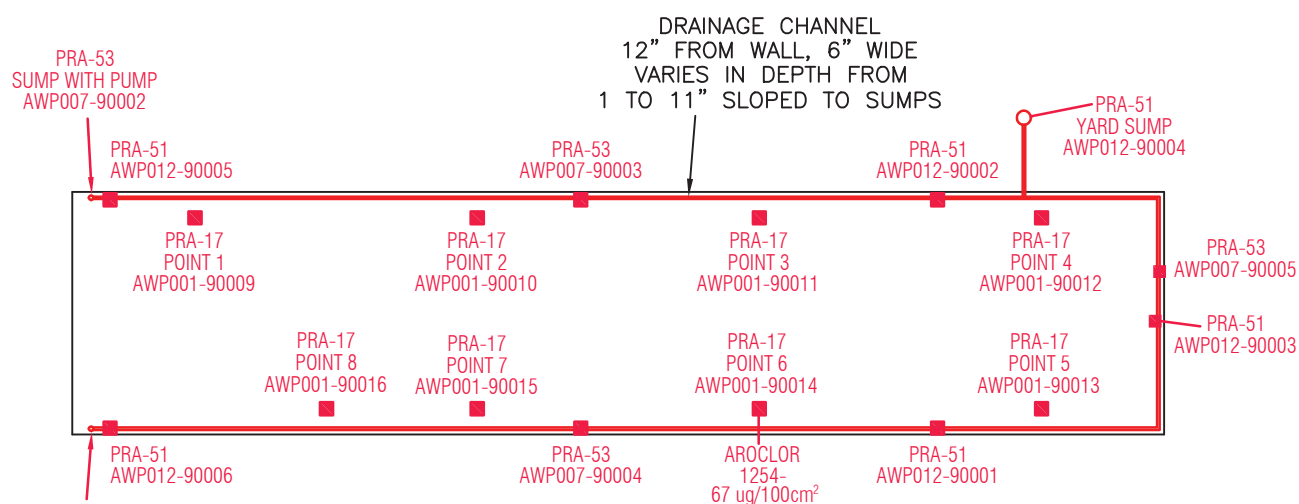
DATE: NOVEMBER 1, 2001	
JOB NO.: 11879-114-007	
DRAWN BY: MAR	CHK'D BY: JJK
SCALE: AS SHOWN	

URS

1701 GOLF ROAD, SUITE 1000
ROLLING MEADOWS, ILLINOIS 60008-4227
PHONE: 847.228.0707
FAX: 847.228.1115



PRA-17
WORTHINGTON COMPRESSOR BUILDING
FIRST FLOOR



PRA-17
WORTHINGTON COMPRESSOR BUILDING
BASEMENT FLOOR

PRA-51
DRAINLINE SEGMENT D

PRA-53
DRAINLINE SEGMENT B

LEGEND:

- PRA-17** ■ = WIPE SAMPLE LOCATION
PRA NUMBER LOCATION
- POINT 1** = LOCATION WITHIN PRA
- AWP001-90001** = SAMPLE NUMBER
- XXXX** = ANALYTICAL RESULTS

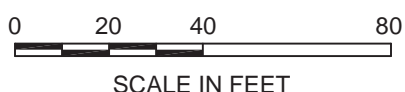
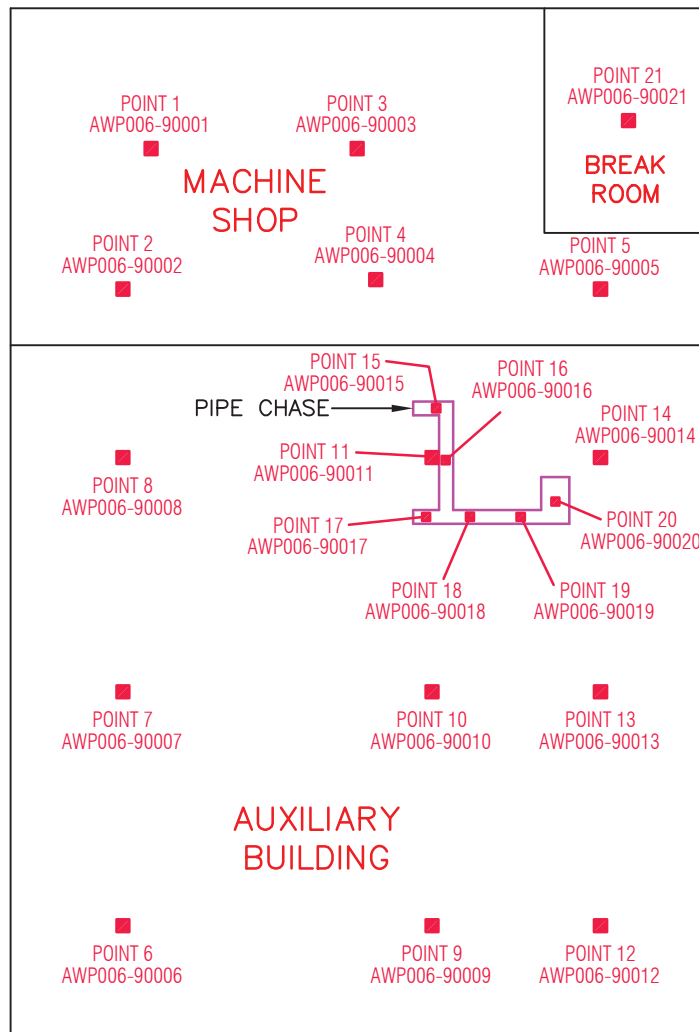


FIGURE 4-7 SAMPLE LOCATIONS WORTHINGTON COMPRESSOR BUILDING CRAWFORD COMPRESSOR STATION	
COLUMBIA GAS TRANSMISSION CO.	
DATE: NOVEMBER 1, 2001	 1701 GOLF ROAD, SUITE 1000 ROLLING MEADOWS, ILLINOIS 60008-4227 PHONE: 847.228.0707 FAX: 847.228.1115
JOB NO.: 11879-114-007	
DRAWN BY: MAR	
CHK'D BY: JJK	
SCALE: AS SHOWN	



PRA-30
AUXILIARY BUILDING
FIRST FLOOR

**PCB Concentrations above the
characterization action level**

POINT 1	PCBs 39 ug/100cm ²
POINT 3	PCBs 14 ug/100cm ²
POINT 15	PCBs 3,700 ug/100cm ²
POINT 16	PCBs 810 ug/100cm ²
POINT 17	PCBs 2,800 ug/100cm ²
POINT 18	PCBs 1,600 ug/100cm ²
POINT 19	PCB 1,700 ug/100cm ²
POINT 20	PCBs 2,900 ug/100cm ²

LEGEND:

- PRA-30 ■ = WIPE SAMPLE LOCATION
PRA NUMBER LOCATION
- POINT 1 = LOCATION WITHIN PRA
- AWP006-90001 = SAMPLE NUMBER
- XXXX = ANALYTICAL RESULTS

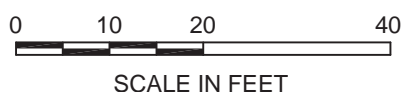


FIGURE 4-8
SAMPLE LOCATIONS
AUXILIARY BUILDING
CRAWFORD COMPRESSOR STATION
COLUMBIA GAS TRANSMISSION CO.

DATE:
NOVEMBER 1, 2001

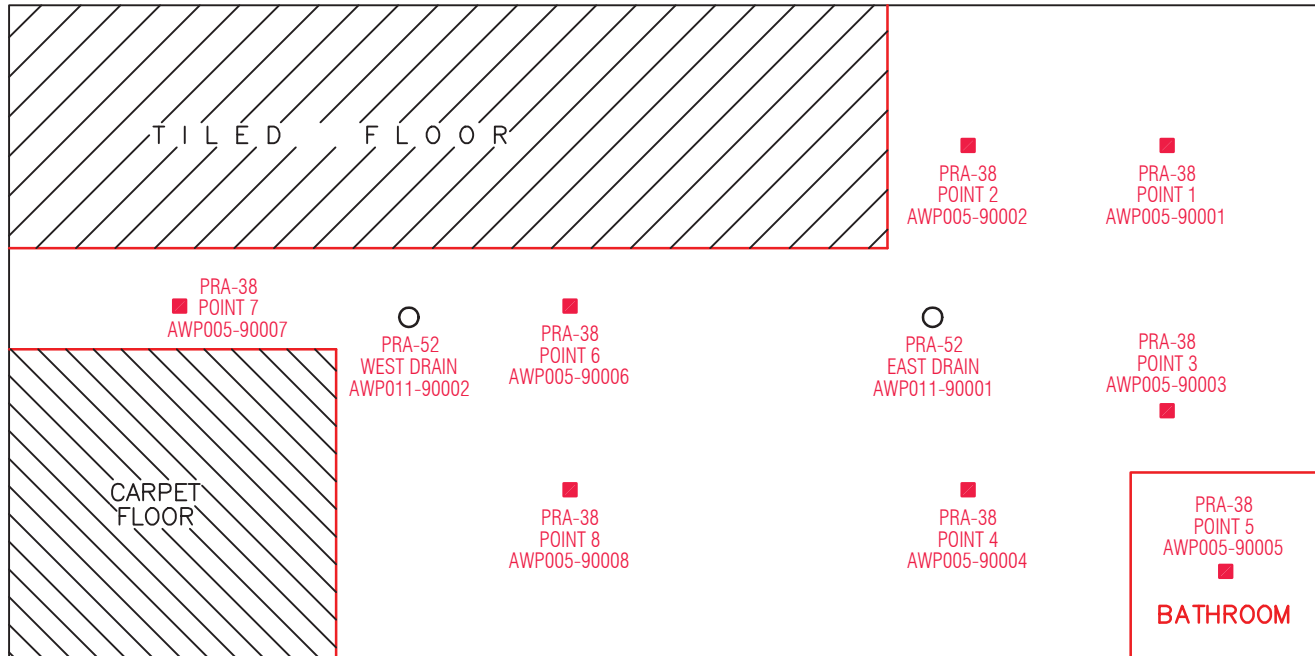
JOB NO.:
11879-114-007

DRAWN BY: MAR CHK'D BY: JJK

SCALE:
AS SHOWN

URS

1701 GOLF ROAD, SUITE 1000
ROLLING MEADOWS, ILLINOIS 60008-4227
PHONE: 847.228.0707
FAX: 847.228.1115

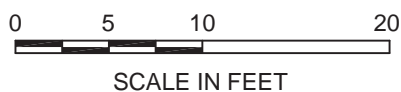


**PRA-38
WELDING SHOP BUILDING
FIRST FLOOR**

**PRA-52
DRAINLINE SEGMENT C**

LEGEND:

- PRA-38 ■ = WIPE SAMPLE LOCATION
PRA NUMBER LOCATION
- POINT 1 = LOCATION WITHIN PRA
- AWP005-90001 = SAMPLE NUMBER
- XXXX = ANALYTICAL RESULTS



**FIGURE 4-9
SAMPLE LOCATIONS
WELDING SHOP BUILDING
CRAWFORD COMPRESSOR STATION
COLUMBIA GAS TRANSMISSION CO.**

DATE:
NOVEMBER 1, 2001

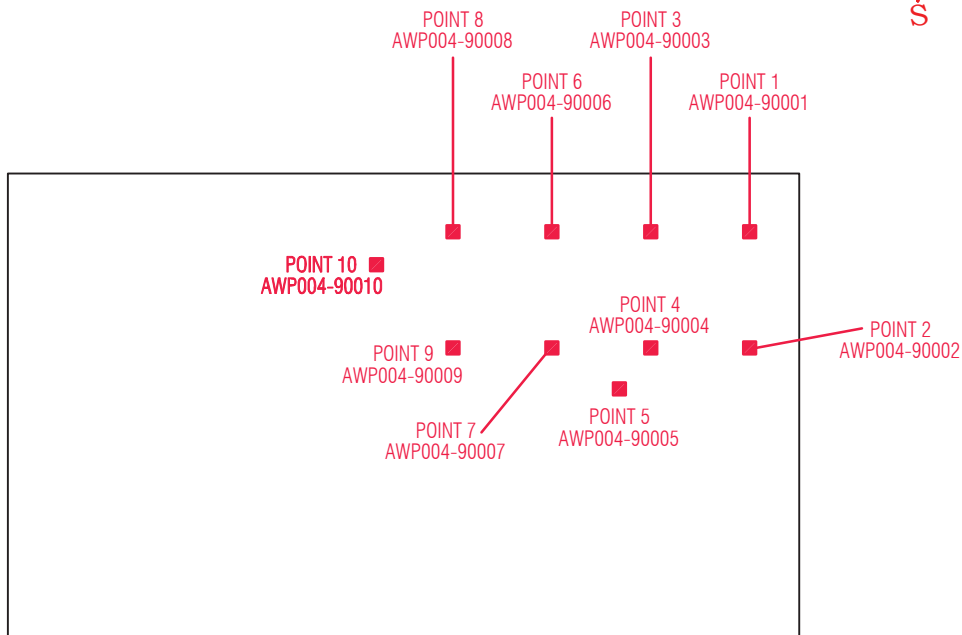
JOB NO.:
11879-114-007

DRAWN BY: MAR CHK'D BY: JJK

SCALE:
AS SHOWN

URS

1701 GOLF ROAD, SUITE 1000
ROLLING MEADOWS, ILLINOIS 60008-4227
PHONE: 847.228.0707
FAX: 847.228.1115



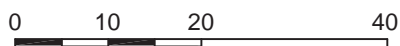
PRA-39
WAREHOUSE BUILDING
NE CORNER - PREVIOUSLY REMEDIATED

**PCB Concentrations above the
characterization action level**

POINT 2	PCBs 150 ug/100cm ²
POINT 1	PCBs 14 ug/100cm ²
POINT 3	PCBs 15 ug/100cm ²
POINT 6	PCBs 11 ug/100cm ²

LEGEND:

- PRA-39 ■ = WIPE SAMPLE LOCATION
PRA NUMBER LOCATION
- POINT 1 = LOCATION WITHIN PRA
- AWP004-90001 = SAMPLE NUMBER
- XXXX = ANALYTICAL RESULTS



SCALE IN FEET

FIGURE 4-10
SAMPLE LOCATIONS
WAREHOUSE BUILDING
CRAWFORD COMPRESSOR STATION
COLUMBIA GAS TRANSMISSION CO.

DATE:
NOVEMBER 1, 2001

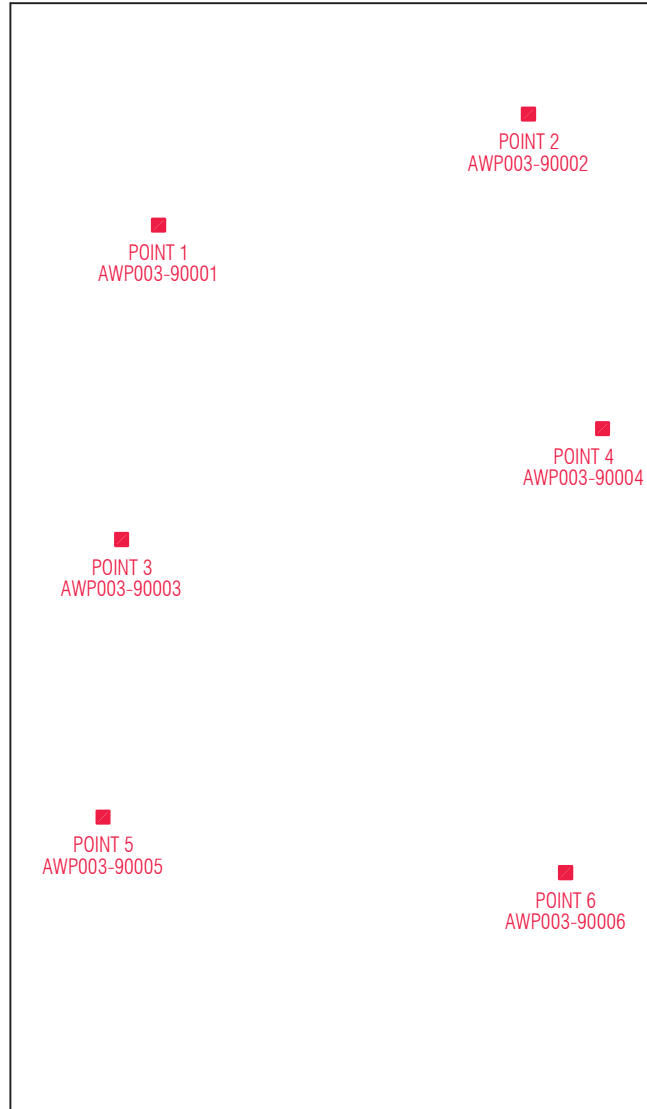
JOB NO.:
11879-114-007

DRAWN BY: MAR
CHK'D BY: JJK

SCALE:
AS SHOWN

URS

1701 GOLF ROAD, SUITE 1000
ROLLING MEADOWS, ILLINOIS 60008-4227
PHONE: 847.228.0707
FAX: 847.228.1115



PRA-40
WAUKESA COMPRESSOR BUILDING
FIRST FLOOR

LEGEND:

- PRA-40 ■ = WIPE SAMPLE LOCATION
PRA NUMBER LOCATION
- POINT 1 = LOCATION WITHIN PRA
- AWP003-90001 = SAMPLE NUMBER
- XXXX = ANALYTICAL RESULTS

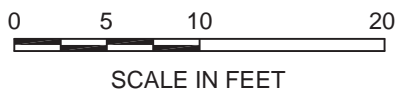


FIGURE 4-11	
SAMPLE LOCATIONS	
WAUKESA COMPRESSOR BUILDING	
CRAWFORD COMPRESSOR STATION	
COLUMBIA GAS TRANSMISSION CO.	
DATE: NOVEMBER 1, 2001	
JOB NO.: 11879-114-007	1701 GOLF ROAD, SUITE 1000 ROLLING MEADOWS, ILLINOIS 60008-4227
DRAWN BY: MAR	CHK'D BY: JJK
SCALE: AS SHOWN	
PHONE: 847.228.0707 FAX: 847.228.1115	